

Evaluation of the flow pump and constant head techniques for permeability measurements

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Abstract: This paper presents a comparison between the constant head and flow pump experimental techniques for evaluating the permeability of soils. The specimens used in both methods were prepared in the laboratory under controlled conditions to ensure repeatable results. A conventional triaxial cell was used to confine the samples, and full saturation of the specimens was ensured by applying a constant level of back pressure. Accurate flow (inflow and outflow) measurements were obtained using precision burettes and calibrated flow pump with known flow rates.